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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/818,313	03/27/2001	Chii-Hwang Chang	67,200-392	1765

7590 09/08/2005

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EXAMINER

MOORE, KARLA A

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/818,313

Applicant(s)

CHANG ET AL.

Examiner

Karla Moore

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-13 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-6 and 8-13 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 27 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it is too long. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6 and 13-18 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,122,566 to Nyugen et al.
4. With respect to claims 1 and 13, Nyugen et al. disclose a method for operating a multi-chamber fabrication tool comprising: providing a multi-chamber fabrication tool comprising a series of chambers (Figure 1, 10; column 1 rows 22-27); first defining for each chamber within the series of chambers a minimum of one fabrication process (the processing is first defined when software which controls the cluster tool is stored) to provide a series of fabrication processes corresponding with the series of chambers, wherein (1) at least one fabrication process is undertaken within more than one chamber (column 9, rows 29-40) and (2) at least one chamber has defined therein more than one fabrication process including the at least one process which is undertaken within more than one chamber (column 1, rows 27-32); then selecting (the chamber may be selected anytime after processing in the multi-chamber fabrication tool has begun as needed, see column 9, rows 23-46) the at least one chamber for processing a substrate while employing the at least one fabrication process which is undertaken within more than

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one chamber, the at least one chamber selected to optimize utilization of the multi-chamber fabrication tool(column 2, rows 50-53); then processing within the multi-chamber fabrication tool the substrate while employing the at least one fabrication process which may be undertaken within the more than one chamber.

5. With respect to claims 2 and 14, the substrate is employed within a microelectronic fabrication selected from the group consisting of integrated circuit microelectronic fabrications, ceramic substrate microelectronic fabrications, solar cell optoelectronic microelectronic fabrications, sensor image array optoelectronic microelectronic fabrications and display image array optoelectronic microelectronic fabrications (column 4, rows 11-14).

6. With respect to claims 3 and 15, the series of chambers comprises at least about 4 chambers (see Figure 1).

7. With respect to claims 4 and 16, the series of fabrication processes is selected from the group consisting of vacuum etch processes, vacuum deposition processes and vacuum implantation processes (column 1, rows 22-32).

8. With respect to claims 5 and 17, the method further comprises defining a series of chamber constraints for the series of chambers (column 5, rows 40-59 and column 6, rows 16-26); defining a series of process constraints for the series of processes (column 5, rows 40-59 and column 5, row 60 through column 6, row 15); and defining a series of substrate constraints for the substrate (column 5, rows 40-59 and column 11, rows 23-58).

9. With respect to claims 6 and 18, in the method, the series of chamber constraints, the series of process constraints and the series of substrate constraints is prioritized through use of an algorithm when selecting the chamber within which is processed the substrate (see Figures 8A-8G).

Response to Arguments

10. First of all, Examiner disagrees with Applicant's assertion that the final rejection was premature. Nyugen et al. was used in the non-final rejection on 12/17/04 to reject claims 1-6, and then used in the final rejection on 6/1/05 to reject claims 1-6 and 13-18.

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11. Applicant's arguments filed 7/29/05 have been fully considered but they are not persuasive. Applicant argues that Nyugen et al. discloses a processing sequence for optimizing utilization that typically begins after processing has already begun in a multi-chamber processing tool, in contrast to Applicant's disclosed invention where optimization begins prior to any processing in the multi-chamber processing tool. While this may be true, Examiner notes however that Applicant's *claims recite only that the optimization processing sequence in the multi-chamber tool begins prior to processing in a specific chamber*. The specific chamber being one that can be used for a plurality of different processes and is also part of a group of chambers that all perform a common process. This optimization sequence is taught by Nyugen et al. Thus, the Nyugen et al. reference continues to read on the claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Karla Moore
Patent Examiner
Art Unit 1763
6 September 2005